

NESMEYANOV, A. N.

Isotopic exchange of phosphorus among  $H_3PO_2$ ,  $H_3PO_3$ , and  $H_3PO_4$ . V. D. Ionin, A. F. Lukovnikov, M. B. Neiman, and An. Nesmeyanov. Doklady Akad. Nauk S.S.R. 67, 463-6(1949).- In equimol. mixts.  $NaH_2P^*O_4 + NaH_2PO_2$ , 1, 0.25, or 0.1 M ( $P^* = P^{32}$ ), heated 80 hrs. in closed vessels, and analyzed by the Mg-NH<sub>3</sub> method, no isotopic exchange was detected by radio-activity measurements up to 280°, at which temp. all the  $H_2PO_2^-$  was oxidized to  $H_2PO_4^-$ . A similar neg. result was found with  $H_3P^*O_4 + H_2PO_2$  up to 280°, at which  $H_2P^*$  disappears. Addn. of 0.0005 M NaOH accelerates oxidation of  $H_3PO_2$  and of  $H_3PO_3$  to  $H_3PO_4$  considerably, oxidation being complete at 195°. On the other hand, addn. of 0.0005-0.001 M HCl increases the stability of  $NaH_2PO_2$  which, in mixt. with  $NaH_2P^*O_4$ , could be detected and sepd. even after heating to 300°. However, no exchange of  $P^*$  was observed even under these conditions.

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Reaction of titanium tetrachloride with alcohols in the presence of ammonia and pyridine. O. V. Nogina, R. Kh. Freidlina, and A. N. Nesmeyanov. Izvest. - Akad. Nauk S.S.R., Otdel. Khim. Nauk 1950, 327-30. -  $TiCl_4$  does not yield  $(RO)_4Ti$  in reactions with ROH unless HCl is eliminated immediately by means of alk. reagents. Slow addn. of 53 g.  $TiCl_4$  to 50 g. EtOH, 85 g pyridine, and 200 ml.  $C_6H_6$  with ice cooling, followed by 2 hrs. at 60-70° and filtration, gave 67%  $(EtO)_3TiCl$ ,  $b_2$  147.5-50.0°; possibly the pyridine-HCl remaining in the filtrate reacted with the neutral ester during distn.  $(EtO)_4Ti$  (15.5 g.), 8 g. pyridine-HCl, and 95 ml.  $C_6H_6$  heated 2 hrs. at 70-5° gave 77%  $(EtO)_3TiCl$ ;  $(BuO)_4Ti$  does not react in these conditions. Addn., with ice cooling, of 35 g.  $TiCl_4$  to 200 g. BuOH, followed by passage of  $NH_3$  to a 13.5-g. wt. gain, and heating 2 hrs. at 70°, gave after filtration 48%  $(BuO)_4Ti$ ,  $b_2$  160-2°; a 60% yield is obtained with 120 g. BuOH in 250 ml.  $C_6H_6$  treated with 60 g.  $TiCl_4$ , followed by  $NH_3$  as above; reaction in  $C_6H_6$  with pyridine as the acid-binding agent gave a 54% yield. Slow addn. of 25 g.  $TiCl_4$  to 159 g.  $CH_2:CHCH_2OH$  with cooling, followed by dry  $NH_3$  (wt. gain 9.5 g.) and heating 1 hr. at 70-80° gave 38%  $(CH_2:CHCH_2)_4Ti$ ,  $b_1$  141-2°; a 42% yield is obtained when  $C_6H_6$  is used as a diluent; the product  $b_2$  156-8°. Slow addn. of 25 g.  $TiCl_4$  to 150 g. EtOH with ice cooling, followed by dry  $NH_3$  (wt. gain 9.4 g.), then heating 40 min. at 70°, filtration on cooling, concn. in vacuo, diln. with  $C_6H_6$  to ppt. residual halide, and repeated filtration, gave 70%  $(EtO)_4Ti$ ,  $b_1$ -5 128-9°. Addn. of 16.6 g.  $TiCl_4$  to 35 g. cyclohexanol in 150 ml.  $C_6H_6$  with cooling, followed by dry  $NH_3$  for 10 hrs. with cooling, filtration, and distn. gave 53%  $(C_6H_{13}O)_4Ti$ ,  $b_1$ -5 204-5°,  $b_1$  190.5-20°.

G. M. Kosolapoff

NESEYANOV, A. N., LUTSENKO, I. F., TUMANOVA, Z. M.

Acetates

Preparation of  $\alpha$ -mercurated aldehydes and ketones from enolacetates. Uch. zap. Mosk. un., No. 132, 1950.

Monthly List of Russian Accessions, Library of Congress, October 1952. Unclassified.

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**A new synthesis of pyrazoles.** A. N. Nezmeryanov, N. K. Kochetkov, and M. I. Kylianikaya (M. V. Lomonosov State Univ., Moscow). *Izvest. Akad. Nauk S.S.R. Otdel Khim. Nauk* 1959, 229. *6*. -Alkyl 2-chlorovinyl ketones with N-alkyl and arylhydrazines yield 3-alkylpyrazoles and their 1-Pb derivatives in 50-70% yields. To 25 g. AcCl and 75 g. CCl<sub>4</sub> was added with ice cooling over 2 hrs. 50 g. powder AlCl<sub>3</sub> in a stream of CCl<sub>4</sub>, continued for 6 hrs.; treatment of the product with ice yielded 55% MeCOCH<sub>2</sub>CHCl (I), m.p. 40-1°, b.p. 59-60°, n<sub>D</sub><sup>20</sup> 1.4075. EtCOCl gave 47% EtCOCH<sub>2</sub>CHCl (II), m.p. 53-6°, d<sub>4</sub><sup>20</sup> 1.0702, n<sub>D</sub><sup>20</sup> 1.4500; similarly, PrCOCl gave 74.5% PrCOCH<sub>2</sub>CHCl (III), m.p. 60-7°, d<sub>4</sub><sup>20</sup> 1.0300, n<sub>D</sub><sup>20</sup> 1.4040. *tao*-BuCOCl yielded 72% *tao*-BuCOCH<sub>2</sub>CHCl (IV), m.p. 64-5°, d<sub>4</sub><sup>20</sup> 1.0117, n<sub>D</sub><sup>20</sup> 1.4500. Nethyl-H<sub>2</sub>O (4 g.) and 4 g. I in 10 ml. Et<sub>2</sub>O gave, after 24 hrs. at room temp. and 1 hr. on a steam bath, addition of 20 ml. 40% NaOH, and evap. with Et<sub>2</sub>O, 61% 3-methylpyrazole (V); a 63% yield was obtained by adding 21 g. NaOAc to 10 g. NH<sub>4</sub> sulfate in the min. amt. of H<sub>2</sub>O, filtering, treating with

ice cooling and shaking with 4 g. I, letting stand 24 hrs., and heating 1 hr. on a steam bath, as above. V, b.p. 204-6°, d<sub>4</sub><sup>20</sup> 1.0206, n<sub>D</sub><sup>20</sup> 1.4935; *picrate*, m.p. 141-1.5°. The 1st procedure with II gave 63.5% 3-ethylpyrazole, b.p. 107-8°, d<sub>4</sub><sup>20</sup> 0.8618, n<sub>D</sub><sup>20</sup> 1.4934; *picrate*, m.p. 127.5-8.0°. With III the 1st procedure gave 64.5% and the 2nd 64.5% 3-propylpyrazole, b.p. 225-6°, b.p. 120.5-1.0°, d<sub>4</sub><sup>20</sup> 0.9917, n<sub>D</sub><sup>20</sup> 1.4973; *picrate*, m.p. 113-14°. IV gave 60% 3-butylpyrazole, b.p. 231-1°, b.p. 124.5-5.0°, d<sub>4</sub><sup>20</sup> 0.8165, n<sub>D</sub><sup>20</sup> 1.4918; *picrate*, m.p. 97-8°. I (15 g.) in 30 ml. Et<sub>2</sub>O treated with 10.5 g. PhNH<sub>2</sub>NH<sub>2</sub> in Et<sub>2</sub>O with cooling, let stand 24 hrs., and heated 1 hr. on a steam bath similarly yielded 42% 1-phenyl-3-methylpyrazole, b.p. 255-6°, solidified on cooling; *chloroplatinate*, m.p. 173-4°. I (0.5 g.) and 0.9 g. *p*-BuCH<sub>2</sub>NHNH<sub>2</sub> refluxed in 15 ml. AcOH, let stand overnight, and dilut. with H<sub>2</sub>O, gave 70% 1-(*p*-butylphenyl)-3-methylpyrazole, m.p. 93.5-4.0°; *p*-BuNCH<sub>2</sub>NHNH<sub>2</sub> gave 80% 1-(*p*-adrenophenyl) analog, m. 105.5-6.0° (from dil. AcOH). II gave 81% 1-(*p*-nitrophenyl)-3-ethylpyrazole, m.p. 122-2.5° (from dil. AcOH), while III gave 60% 3-*P* analog, m. 104.5-5.0° (from dil. AcOH), and IV gave 65% 3-*iso*-Bu analog, m. 65-6° (from dil. EtOH). G. M. Kosolapoff

Action of magnesium on *N*-(2-bromoethyl)-*N*-methyl  
benzene. A. N. Neimarkov, R. Kh. Freidlin, and E. I.  
Sl-5.—Reaction of 3 g. Mg and 37 g. BrCH<sub>2</sub>CH<sub>2</sub>NMePh  
in 60 ml. Et<sub>2</sub>O in a N atm., completed by 1 hr. on a steam  
(isolated as the dibromide), and 4.8 g. (Ph<sub>2</sub>FeNCH<sub>2</sub>CH<sub>2</sub>Br,  
14.6 g. BrCH<sub>2</sub>CH<sub>2</sub>NMePh and 1.6 g. Mg in Et<sub>2</sub>O with 0.2 g.  
PrCHO gave, upon aq. treatment, a yellow product, whose  
picrate m. 124-6°; the same product, along with some  
PhNMe<sub>2</sub>, was obtained by addn. of Et<sub>2</sub>AlCl to an equi-  
molar amt. of PhNMe<sub>2</sub>. Hence, Gilman and Heek (C.A.  
23, 4168), Braun, et al. (C.A. 12, 2677), erred in claiming  
the formation of PhNMeCH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub>; the latter is ex-  
tremely unstable and immediately cleaves to PhMe and Ph-  
MeNMe<sub>2</sub>. The picrate, m. 124-5°, has a N content  
but its C and H analyses (unstated) show that it is not this  
compd. G. M. Kosolapoff

NESMEYANOV, A. N.

Isotopic exchange of phosphorus between the phosphate ion and esters of phosphoric acid. A. F. Lukovnikov, V. P. Medvedev, M. B. Neyman, An. N. Nesmeyanov, and I. S. Shaverdina. Guide to Russ. Sci. Periodical Lit. 3, 187-9 (1950) (English translation - See C.A. 44, 43151.)

E. J. C.

NESMEYANOVA, N.  
USSR

Preparation of  $\alpha$ -mercurated ketones by decarboxylation  
of mercury salts of  $\alpha$ -keto acids. A. N. Nesmeyanov, I. V.  
Lurssenko, and S. N. Ananchenko. *Uch. Zap. Akad.*

*Moskov. Gosudarst. Univ. im. M. V. Lomonosova* No. 132,  
*Org. Khim.* 7, 139-42 (1950).—The following new procedure  
has been developed for the synthesis of  $\alpha$ -mercurated  
ketones.  $\text{AcCM}_2\text{CO}_2\text{Et}$  (16 g.) was slowly added to 22.5 g.  
 $\text{NaOH}$  in 210 ml.  $\text{H}_2\text{O}$ , the mixt. shaken 45 min., extd.  
with  $\text{Et}_2\text{O}$ , the aq. layer acidified to Congo red with dil.  
 $\text{H}_2\text{SO}_4$ , and extd. again with  $\text{Et}_2\text{O}$ , gave on evapn. of the ext.  
100%  $\text{AcCM}_2\text{CO}_2\text{H}$ . This (46 g.) added to 115 g.  $\text{Hg}(\text{OAc})$  in 300 ml.  $\text{H}_2\text{O}$  gave a ppt. of the  $\text{Hg}$  salt; the entire  
mixt. was heated until  $\text{Hg}$  ion vanished from the soln. The  
hot soln. was filtered, treated with 20.7 g.  $\text{KCl}$  in 150 ml.  
 $\text{H}_2\text{O}$ , yielding a ppt. of 74%  $\text{AcCM}_2\text{HgCl}$ , m. 121°. To  
this (16 g.) in 30 ml. pentane was slowly added 4 g.  $\text{AcCl}$   
in 10 ml. pentane and the mixt. heated on steam bath 0.5  
hr. at 20°, cooled, filtered, and the filtrate, after washing

gave 75% 3-methyl-3-chloromercuri-2-pentanone, a heavy oil.  
This treated under  $\text{C}_6\text{H}_6$  with  $\text{AcCl}$  gave 60% mixed *cis*-  
*trans* isomers of 3-methyl-2-penten-2-ol acetate, b.p. 60-8°,  
 $n_D^{20}$  1.4280, d<sub>4</sub> 0.9027. Shaking 30 g.  $\text{AcCEt}_2\text{CO}_2\text{Et}$  with  
16 g.  $\text{NaOH}$  in 150 ml.  $\text{H}_2\text{O}$  6 weeks gave after the usual  
treatment 40%  $\text{AcCEt}_2\text{CO}_2\text{H}$ . This (12 g.) treated with  
20 g.  $\text{Hg}(\text{OAc})$  in 100 ml.  $\text{H}_2\text{O}$  and heated as above gave  
after filtration and treatment with aq.  $\text{KCl}$ , 58% 3-ethyl-3-  
chloromercuri-2-pentanone, m. 77°. This treated in pentane  
soln. with  $\text{AcCl}$  gave 3-ethyl-3-penten-2-ol acetate, b.p.  
160-70°,  $n_D^{20}$  1.4340, d<sub>4</sub> 0.9019. Shaking 30 g.  $\text{Na}_2\text{CO}_3$  in  
methylcyclopentanone-2-carboxylate with 12.0 g.  $\text{NaOH}$  in  
115 ml.  $\text{H}_2\text{O}$  15 min. gave 100% free acid, an oil. This  
above gave 2-methyl-2-chloro-

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Isotopic Exchange of Phosphorus Between the Phosphate Ion and Phosphoric-Acid Esters. A. F. Lukovnikov, V. P. Medvedev, M. B. Neiman, A. N. Nesmeyanov, and I. S. Shaverdina. Doklady Akad. Nauk S.S.R. 70, 43-5 (1950) (in Russian).  
A study of P exchanges between  $\text{PO}_4^{3-}$  ions and  $(\text{RO})_3\text{PO}$  esters is important for the understanding of the animal phosphate assimilation. Several writers, using various esters, proved the absence of such an exchange at temperatures up to  $100^\circ\text{C}$ . The present authors experimented at  $100$ - $300^\circ\text{C}$ . using sealed quartz ampuls. The phosphate ion was  $\text{P}^{32}$  labeled; the mixtures were heated for 20-30 hr. in the presence of absolute dioxane, the volumes used being 5 ml with a P content 0.02 to 0.03 g. The following esters were investigated: tricresyl phosphate  $(\text{CH}_3\text{C}_6\text{H}_4\text{O})_3\text{PO}$ , tributyl phosphate  $(n\text{-C}_4\text{H}_9\text{O})_3\text{PO}$ , triisobutyl phosphate  $(i\text{-C}_4\text{H}_9\text{O})_3\text{PO}$ , trihexyl phosphate  $(\text{C}_6\text{H}_{13}\text{O})_3\text{PO}$ , and triethyl phosphate  $(\text{C}_2\text{H}_5\text{O})_3\text{PO}$ ; the first one was heated with  $\text{H}_3\text{P}^{32}\text{O}_4$ , all the others with  $\text{Na}_2\text{HP}^{32}\text{O}_4$ . As a result, no P exchanges were observed. Consequently, the R-O bond is strong up to  $290^\circ$ , at which temperature the esters begin to decompose.

NESMEYANOV, A.N.: KOCHETKOV, N.K.

Acetylenic Acids

Addition of mercuric chloride to acetylenic acids and esters. Uch. zap. Mosk. un., No. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1956, Uncl.  
<sup>2</sup>

NESMEYANOV, A.N.: FREIDLINA, R.Kh.; KOCHETKOV, A.K.

Dimethylvinyl Carbinol Acetate

1, 6-Addition of mesitylmagnesium bromide to dimethyl vinylcarbinol acetate. Uch.  
zap. Mosk. un., No. 132, 1950.

2  
9. Monthly List of Russian Accessions, Library of Congress, October 1958, Uncl.

NESEMEYANOV, A. N.

Chemical Structure

Conjugation of simple bonds. Uch. zap. Mosk. un., no 132 '50

9. Monthly List of Russian Accessions, Library of Congress, October <sup>2</sup> 195<sup>1</sup>, Uncl.

NESMEYANOV, A. N.; MAKAROVA, L. G.

Onium Compounds.

Decomposition and formation of onium salts and synthesis of "element-organic" compounds via onium compounds, Uch. zap. Mosk. un., No. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

NESEYANOV, A.N.: REUTOV, O.A.

Arylazocarboxylic Salts

Decomposition of arylazocarboxylic salts. Uch. zap. Mosk. un., No. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October <sup>2</sup> 1958, Uncl.

NESMEYANOV, A. N.: LUTSEMKO, I. F.:

Ketones

Preparation of L-Mercurated ketones by decarboxylation of mercury salts of B-ketone acids.  
Uch. zap. Mosk. un., no. 132, 1950.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

NESMEYANOV, A.N., KOCHETKOV, N.K.

Mercury Haloacetylides

Properties of mercury haloacetylides. Uch. zap. Mosk. un. no. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 1958, Uncl.<sup>2</sup>

NESMEYANOV, A. N.; BATUYEV, M. I.;  
BORISOV, A. YE.

Organometallic Compounds

Raman spectrum of chlorovinyl derivatives of mercury and antimony. Uch. zap. Mosk. un., No. 132, 1950.

Monthly List of Russian Accessions. Library of Congress. October 1952. Unclassified.

NESMYANOV, A. N.: BORISOV, A. YE.:

AERAMOVA, A. N.

Organometallic Compounds

Synthesis of stereoisomeric organic tin compounds with ethylenic structure from organomercury cistrans isomers and their rearrangement in ultra-violet light. Uch. Zap. Mosk. un., No. 132, 1950.

Monthly List of Russian Accessions. Library of Congress. October 1952. Unclassified.

NE SMEYANOV, A. N.; BORISOV, A. YE.; VIL'CHEVSKAYA, V.D.

Organometallic Compounds

Transformation of trans- $\beta$ -chlorovinyl organometallic compounds of mercury and tin into their cis-isomers under the action of peroxides, Uch. zap. Mosk. un., No. 132, 1950.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

NESMEYANOV, A.N.; BORISOV, A. YE.; SHEPELEVA, R. I.

Thallium Compounds

Di-cis- $\beta$ -Chlorovinylthallium chloride. Uch.zap.Mosk.un. No. L32 1950

9. Monthly List of Russian Accessions, Library of Congress, October 1952 Unc1.

FREIDLINA, R.Kh.; NOGINA, O.V.; NESMEYANOV, A.N.

Bromine

Effect of bromine on alkylchlorocarbonates. Uch. zap. Mosk. un., No. 132, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October <sup>2</sup> 1950, Uncl.

NESMEYANOV, A. N.: FTFLYDLINA, R.Kh.; DAN, YE. I.

Magnesium

Effect of magnesium on B-bromoethylmethylaniline, Uch. zap. Mosk. un., no. 132, 1950

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

NESEMEYANOV, A. N., KURSANOV, D. N.,  
PECHERSKAYA, K. A., TARNES, Z. N.

Chemical Structure

"Effect of structural factors on con-jugation phenomena. Part I. Mobility of hydrogen atoms in cyclic ketones of varied structure." Uch. Zap. Mosk. un. no. 132, 1950.

Monthly List of Russian Accessions. Library of Congress. October 1952. UNCLASSIFIED.

NESMYANOV, A. N., KURSANOV, D. N., SMOLINA, T. A., PARNES, Z.N.

Chemical Structure

Effect of structural factors on conjugation phenomena. Part 2. Mobility of hydrogen atoms in acetyl acetone and in cobalt and aluminum acetylacetones. Uch. zap. Mosk. un., no. 132, '50.

Monthly List of Russian Accessions. Library of Congress, October 1952. UNCLASSIFIED.

NESHEYANOV, A.N.: PECHERSKAYA, K.A.: TOLSTAYA, T.P.

Chemical Structure

Effect of structural factors on conjugation phenomena. Part 4. Reactivity of the CH-bond of barious ketones. Uch. zap. Mosk. un., No. 1, 1950.

9. Monthly List of Russian Accessions, Library of Congress, October 195<sup>6</sup>, Uncl.<sup>2</sup>.

V. Effect of structural factors on conjugation phenomena.  
V. Analysis of the C-C link in some compounds containing the carbonyl group. A. N. Nevezinov,  
G. G. Pereslava, N. A. Vasil'eva, and T. V. Blazhevich  
(M. V. Lomonosov State Univ., Moscow). Izv. Akad.

Nauk SSSR, Khim. Nauk 1951, 102-8; cf.  
Litteratur Zaptchi. Nauk. Gosudarstv. Univ., 112, No. 7,  
6(1950); C.A. 44, 6000. — Crystal violet base Me ether  
(12 g.) and 15 g. AcOH after 4 hrs. at 85-105° gave 40%  
2,2'-di(p-dimethylaminophenyl)propionaldoxide (I), m.  
121.5-2.0° (from  $\text{CaH}_2\text{-EtOAc}$ ), and some 0.4 g. unknown

substance,  $\text{C}_{12}\text{H}_{14}\text{N}_2\text{O}_2$ , m. 230-3° (from  $\text{Me}_2\text{CO}$ ), which was  
more sol. It forms the p-dimethylaminophenoxide, decom-  
poses at 157-8° (from  $\text{CaH}_2\text{-EtOH}$ ), and oxime, decomps., 205-7°.  
Heating I with AcOH yields AcI (94% recovered) and the  
residue after reduction with  $\text{NaBH}_4$  gave 88% crystal violet  
base base, m. 178-8°; similar cleavage of I occurs on  
heating with other carboxylic acids. I reduced with  $\text{BeO}$   
gives  $\text{MgBr}_2$ ; similar undercut cleavage and gave (after  
reduction) 87% base base. I is completely unchanged after  
heating with hot  $\text{Ac}_2\text{O}$ . Similarity was found, from  
 $\text{Et}_2\text{NOH}$ , 87% 2,2'-dimethylaminophenyl-  
propionaldoxide, m. 168.5-70.5°; 2,2'-dimethylaminophenyl-  
oxime, decomps. 163-4°. The substance is rapidly cleaved by  
hot  $\text{AcOH}$  into AcI and the base base of crystal violet;  
similar cleavage occurs with  $\text{MgBr}_2$ .  $\text{MeCH}_2\text{CHCHO}$   
yields 88% 2,2'-di(p-dimethylaminophenyl)-2-propanone, m.  
168-9°. P-dimethylaminophenoxide, m. 205-7° (contains 5%  
 $\text{EtOH}$ , lost on evaporation from  $\text{CaH}_2$ -quinoline); sulfide, m. 194-4°  
(from  $\text{EtOH}$ , contains 1%  $\text{EtOH}$ ); anisidone, m. 210°  
(contains 1%  $\text{EtOH}$ ). This product also readily yields  
crystal violet base base and probably  $\text{MeCH}_2\text{CHCHO}$  on  
heating with  $\text{AcOH}$  or  $\text{MgBr}_2$ . Heating crystal violet base  
Me ether (0.5 g.) with 3 g.  $\text{Et}_2\text{NOH}$  in  $\text{CaH}_2$  5 hrs. gave over  
2,2'-di(p-dimethylaminophenyl)-2-ethoxyethane, m. 169-3°  
(decomp.; from  $\text{CaH}_2\text{-EtOH}$ ); this is also readily cleaved  
on heating with  $\text{AcOH}$  or  $\text{HCO}_2\text{H}$ ; heating with  $\text{HCO}_2\text{K}$ , however, is ineffective, but  $\text{MgBr}_2$  is still an active cleaving

On file

**Notes.** - Crystal violet (II, 5 g.) added to  $\text{CH}_3\text{C}(\text{CH}_3)_2\text{MgCl}$  (about 50 g. in  $\text{CH}_2\text{Cl}_2$ ;  $\text{CHCl}_3/\text{H}_2\text{O}$ ) gave 60% of  $\alpha,\beta$ -dimethyl- $\gamma$ -butyric acid (III, m. 150-4° (from  $\text{CH}_2\text{Cl}_2/\text{H}_2\text{O}$ ), which with heating 1 hr. with sodium gave the anhydride, m. 178-80° (anhydride, from  $\text{CH}_2\text{Cl}_2/\text{H}_2\text{O}$ ). The alkyt derv., decomposed at 170°, yielding crystal violet; heating the anhydride with higher doses and yield crystal violet. The results are interpreted in terms of the conjugated system resulting in 1,4-shifts with a shift of the reaction center to the C-C link of the terminal C of the Ph-C group. VI. Decomposition of the intermediate salt in excess ammonia containing the triphenylmethyl group. A. N. Novozhilov, N. A. Vodovozov, and E. G. Peresypkina, *JMD*, 689-707. Reduction of  $(\text{p-Me}_2\text{NCO})_2\text{CCH}_2\text{NO}_2$  (I) with  $\text{BaCl}_2$  in  $\text{HCl}$  2 hrs. at 200° and neutralization with  $\text{NH}_4\text{OH}$  gave triphenylmethyl anhydride (II), m. 200-4° (from  $\text{CH}_2\text{Cl}_2/\text{H}_2\text{O}$ ); 7,6-dimethoxy- $\alpha$ -nitrophenyl phenoxide, m. 220-4° (from  $\text{CH}_2\text{Cl}_2/\text{H}_2\text{O}$ ); 7,6-dimethoxy- $\alpha$ -nitrophenyl phenoxide, m. 220-4°. The anhydride boiled with  $\text{AcOH}$  8 hrs. was totally unchanged; reduction with  $\text{Zn dust}$  in  $\text{HCl}$  gave 90% *t,t*-dimethoxy- $\alpha$ -nitrophenyl phenoxide, m. 170-4° (from  $\text{CH}_2\text{Cl}_2/\text{H}_2\text{O}$ ); reduction with  $\text{K}-\text{BrOH}$  or  $\text{Zn dust}$  in  $\text{AcOH}$  failed. The anhydride with 5 mol-%  $\text{MeOH}$  showed no tendency to react; heating with cold  $\text{HCl}$  12 hrs. gave 90%  $\alpha,\beta$ -dimethyl- $\gamma$ -butyric acid (III, m. 150-4° (in a sealed tube), which with  $\text{NaOMe}-\text{EtOH}$  gave the  $\text{Me}_2\text{N}$  add., decompos., 200-7°. Refluxing the acid with  $\text{NaOMe}-\text{EtOH}$  and  $\text{Et}_2\text{N}$  gave the  $\text{Et}_2\text{N}$  ester, m. 175-4° (from  $\text{Et}_2\text{NBr}$ ); the ester is unchanged by hot  $\text{AcOH}$  and does not

react with  $\text{Et}_2\text{NBr}$ . Heating the free acid 8 hrs. with  $\text{NaOH}$  and reduction of the CO gave 71.4% crystal violet base. The acid does not react with  $\text{PCl}_5$  in the cold. With  $\text{PCl}_5$  in  $\text{CaH}_2$  the acid yields 60% CO and the residue behaves as above;  $\text{PCl}_5$  or  $\text{PCl}_3$  also cause CO evolution and formation of crystal violet. Refluxing I 2 hrs. with cold  $\text{HCl}$  and neutralization with  $\text{NH}_4\text{OH}$  gave  $(\text{p-Me}_2\text{NCO})_2\text{C}\equiv\text{N} \rightarrow \text{O}$ , decompos., 212-13° (from  $\text{CH}_2\text{Cl}_2$ ), which, boiled with cold  $\text{HCl}$  10 hrs., yields  $\alpha$ -methyl- $\alpha$ -nitrophenyl anhydride, m. 200-4°, also obtained from crystal violet and  $\text{KCN}$ ; reduction with  $\text{NaCl}-\text{HCl}$  is similar, but no reaction takes place with  $\text{NaCl}-\text{HCl}$  or  $\text{HClO}_4$  cannot decompose. The nitrite oxide boiled with  $\text{NaOIS}$  gives 97% crystal violet base (after the reduction step). Crystal violet with  $\text{Pb}(\text{OAc})_4$  gave *t,t*-dimethyl- $\alpha$ -nitrophenyl phenoxide, m. 151-3° (from  $\text{CH}_2\text{Cl}_2-\text{EtOH}$ ), and a larger amt. of crystal violet base. The butane deriv. is identical with that obtained by hydrogenation of the alkyt analog over Pt-C. (J. M. Cowland)

NESMEYANOV, A. N.; Pacherskaya, K. A.;

Hydrocarbons

Introduction of the trichloromethyl group into an aromatic nucleus by a decarboxylation of trichloroacetic acid in the presence of aromatic hydrocarbons. Uch. zap. Mosk. un., no. 132, 1950.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

SHEVERDIN, Nataliya Ivanovna; KOCHESHKOV, Ksenofont Alekseyevich.  
Prinimala uchastiye ABRAMOVA, L.V.; NESKRYANOV, A.N.,  
akademik, otd. red.; RODICKOV, A.N., red.

[Methods of the chemistry of organometallic compounds;  
zinc, cadmium] Metody elementno-organicheskoi khimii; tsink  
kadmii. Moskva, Nauka, 1964. 235 p. (MIRA 18:2)

NESMEYANOV, A. Academician 600

USSR (600)

"In the Service of Peace and Progress" (By Academician A. Nesmeyanov,  
President of the USSR Academy of Sciences.)

Soviet Source: Pravda, Sept 20, p. 2.

Current Digest of the Soviet Press (in [redacted] Library), Vol 3, No 38, 1951, p. 32

NESTMAYANOV, A., Academician

Soviet Science Serves Cause of Peace and Public Welfare. (By Academician  
A. Nesmeyanov, President of U.S. S. R. Academy of Sciences.)

Soviet Source: Izvestia, Nov. 4, p.2.

Current Digest of the Soviet Press (in [redacted] Library), Vol. 3, No. 41  
1951, P.3

CA.

Addition of organomagnesium compounds to 1,1-di-methyl-1-oxetane. A. N. Nesmeyanov, R. Kh. Friedlina, and A. K. Kochetkov. *Zhur. Akad. Nauk S.S.R., Khim. Khim. Nauk* 1961 273-8; cf. *C.A.* 46, 10206. KMgBr and PhMgBr react with  $\text{CH}_3\text{CH}(\text{Me})\text{COAc}$  (I), by the way of 1,2- and 1,4-addition, 1,2,6-Me<sub>3</sub>C<sub>6</sub>H<sub>3</sub>MgBr (II) adds in the 1,4-manner to  $\text{MeC}_2\text{CHClCOAc}$  (III). All facts about addition of RMgX to allylic esters are explainable without a dissociative mechanism, but on assumption that the single link between the 3rd and 4th C atoms can conjugate with the CO and C-C links, so that 2nd, 4th, and 5th C atoms are subject to the attack by nucleophilic reagent, and by steric effects one can direct the point of reaction to the desired atom. KMgBr (from 30 g. RBr) in Et<sub>2</sub>O added slowly to 30 g. I in Et<sub>2</sub>O and refluxed 5 hrs. gave, after removal of MeCOAc as a semicarbazone, 31.5% 2-methyl-2-butene, m.p. 94-4.5°, n<sub>D</sub><sup>20</sup> 1.4177, d<sub>40</sub><sup>20</sup> 0.7001 (comolytry gave MeCO and PhCOAc). Similarly PhMgBr gave AcPh and 25% 2-methyl-4-phenyl-2-butene, isolated as the dibromide, m.p. 63.5-4.0°. II (from 35 g. RBr) and 17 g. III gave 8.7 g. methylacetylene and 4.5 g. liquid, b.p. 142.5-4.0°, n<sub>D</sub><sup>20</sup> 1.5106, d<sub>40</sub><sup>20</sup> 0.9042, identified as 2-methyl-4-methyl-2-butene, yielding the 2,2-dibromide, m.p. 71-1.5°. G. M. Kosolapoff.

ca

/I

Reaction of  $\beta$ -chlorovinyl ketones with alcohols. A. N. Nemeyanov, N. K. Kochetkov, and M. I. Rybinskaya (M. V. Lomonosov State Univ., Moscow). *Izv. Akad. S.S.R., Oddel. Khim. Nauk* 1951, 393-401.— $\text{RCOCH}=\text{CHCl}$  with alc. yields acetals of  $\beta$ -keto aldehydes. Addn. of 10 g. NaOH in 80 ml. abs. MeOH at under 10° to 20 g.  $\text{MeCOCH}=\text{CHCl}$  in 25 ml. abs. MeOH, then stirring 8 hrs., gave after filtration of NaCl 70%  $\alpha$ -acetoxyaldehyde di-Me acetal,  $b_4$  69°,  $d_4^{25}$  0.9978,  $n_4^D$  1.4231, which decolorizes Hg water and gives a red color with  $\text{FeCl}_3$ . A reaction run instead in the presence of dry HCl gave but 30.5% yield. Stirring the product with 10% HCl gave 62% triacetylbenzene, m. 162-2.5°, while treatment with  $\text{NaBH}_4\text{H}_2\text{O}$  in  $\text{Et}_2\text{O}$  gave  $\beta$ -methylpyrazole (52%), isolated as the picrate, m. 141°; free base, b. 204-5°.  $\rho$ - $\text{O}_2\text{NC}_6\text{H}_4\text{NH}_2$  in hot AcOH gave 44%  $L(p$ -nitrophenyl)- $\beta$ -methylpyrazole (I), m. 164°. The ketone with EtOH, as above, gave 50% corresponding di-Et acetal,  $b_4$  76-7°,  $d_4^{25}$  0.8440,  $n_4^D$  1.4238, while BuOH gave 60% di-Bu acetal analog,  $b_4$  56°,  $b_4$  114-14.5°,  $d_4^{25}$  0.9131,  $n_4^D$  1.4320. Similarly EtOH with  $\text{P(COCH}_2\text{Cl})_3$  gave 51%  $\beta$ -oxoacetoxyaldehyde di-Et acetal,  $b_4$  R1.5-7.0°,  $d_4^{25}$  0.9100,  $n_4^D$  1.4240;  $\text{P(COCH}_2\text{Cl})_3\text{Cl}$  gave 47% butyra-aldehyde di-Et acetal,  $b_4$  84-8°,  $d_4^{25}$  0.9224,  $n_4^D$  1.4117. Addn. of 15 g.  $\text{MeCOCH}=\text{CHCl}$  to 3.5 g. Na in 120 g. PhOH at 60-5° and stirring 4 hrs. gave 31% Me-2-phenylcinnyl ketone,  $b_4$  113-14°,  $d_4^{25}$  1.0771,  $n_4^D$  1.6110, and 20% aceto-acetaldehyde di-Pk acetal (II),  $b_4$  168-9°, m. 31-2°. When the former product is warmed with 20%  $\text{H}_2\text{SO}_4$  it yields PhOH readily, while treatment with  $\rho$ - $\text{O}_2\text{NC}_6\text{H}_4\text{NH}_2$  in AcOH yields I. II with the same reagent gives 64% I.

G. M. Kesalapati

1932

NESMEYANOV, A.N.  
CA

Action of chlorine and bromine on allyl orthoesters. A. N. Nesmeyanov, R. Kh. Freidlin, and O. V. Nejina. Izdat. Akad. Nauk S.S.R., Odzov. Khar. Nauch. 1961, 618-20; cf. C.A. 46, 30746.—All work was done with exclusion of atm. moisture. Intg. 27.5 g. ( $BuO_2Ti$ ) in 30 ml.  $CCl_4$  with Cl until 6 g. gain in wt. is reached, with good ice cooling (the reaction is exothermic), letting stand 24 hrs., and distg. the solvent and low-boiling products gave an ex-

remely hygroscopic residue of  $(MeO)_2TiCH_2BuOMe$  (from the  $BuOMe$ ) in nearly quant. yield. Long drying over  $P_2O_5$  yields  $(BuO)_2TiCl_2$ . Regardless of the reaction with 10 g. ester and 20.7 g. Cl (2 molar Cl per mole) gave among the volatile products, among 8.9 g. (60%)  $PrCO_2Me$ , mainly formed through the free radicals of type  $BuO_2$ . Similar reactions of  $(BuO)_2Ti$  gave 100% hygroscopic  $(BuO)_2TiCl_2\cdot H_2O$  (from atm.  $H_2O$ ), while  $(PrO)_2TiCl_2\cdot H_2O$  was obtained similarly from the Pr ester. Decomposition of  $(BuO)_2Ti$  below 40° gave 10% yellow  $(AlO)_2TiCl_2\cdot H_2O$ , decom. 100-40°; the liquid fractions gave some  $BuOAc$  and  $KOMe$ . Similarly were prep'd. 46%  $(PrO)_2TiCl_2\cdot H_2O$  (from  $Et_2O$ ) and  $(BuO)_2TiBr_2\cdot BuOMe$ . Refluxing  $(PrO)_2Ti$  3 hrs. with pyridine-HCl in  $CCl_4$  gave 85%  $(PrO)_2TiCl_2$  b.p. 140-50°. When 37 g.  $(BuO)_2Ti$  was heated with 54 g.  $CICH_2CH_2O_2$  addit. chloroform and heating until 80 g.  $BuOMe$  had collected, distg. gave 40%  $(CICH_2CH_2O)_2Ti$ , b.p. 130-2°, b.p. 177-8°, as a black viscous liquid. Similar reaction of  $PhCH_2OH$  with  $(BuO)_2Ti$  at 170-80° gave  $(PhCH_2O)_2Ti$ , which could not be dried, in acetone and on heating to 200° at 2 mm. yielded  $(PhCH_2O)_2O$ . Similar reaction of  $(BuO)_2Ti$  with  $MeOCH_2CH_2OH$  gave 80%  $(MeOCH_2CH_2O)_2Ti$ , b.p. 182.5-3.0°, n<sub>D</sub> 1.6177, d<sub>4</sub> 1.1910; similarly was prep'd. 88%  $(EtOCH_2CH_2O)_2Ti$ , b.p. 162-3°, n<sub>D</sub> 1.6030, d<sub>4</sub> 1.1106. G. M. Komissarov

Reaction of 2-chlorovinyl ketones with aliphatic diene compounds. A. N. Kostyanov and N. K. Kochetkov

(M. V. Lomonosov State Univ., Moscow). Izv. Akad. Nauk S.S.R., Otdel. Khim. Nauk 1961, 688-91; cf. C.A. 55, 4978, 2007d.— $\text{CH}_2\text{N}_2$  (from 20 g.  $\text{Me}_2\text{N}(\text{NO})\text{CONH}_2$ ) in cold  $\text{K}_2\text{CO}_3$  with 10 g.  $\text{AcCOCH}_2\text{CHCl}$  yielded after several hrs. a ppt. of *Me*-*S*-pyrenyl ketone  $\text{HCl}$  salt, yielding with  $\text{Na}_2\text{CO}_3$  57% free ketone, m. 100-1° (from  $\text{Et}_2\text{O}$ , then  $\text{C}_2\text{H}_5\text{OH}$ ); *p*-nitrophenylketone, m. 248-9°; *anisyl*, m. 142-3°; *o*-nitrophenylketone, m. 204-5°. Treatment with hot  $\text{KMnO}_4$  gave *S*-pyrenecarboxylic acid, m. 210-11° (sublimation). Similarly  $\text{EtCOCH}_2\text{CHCl}$  gave 90% *Et*-*S*-pyrenyl ketone, m. 122-4° (semicarbazone, m. 188-90°), while  $\text{PhCOCH}_2\text{CHCl}$  gave 71% *Ph*-*S*-pyrenyl ketone, m. 104-6° (semicarbazone, m. 179-80° (decomp.)); *iso-Bu*- $\text{COCH}_2\text{CHCl}$  gave 73% *iso-Bu*-*S*-pyrenyl ketone, m. 84-5° (semicarbazone, m. 187-8° (decomp.));  $\text{PhCOCH}_2\text{CHCl}$  gave 64% *Ph*-*S*-pyrenyl ketone, m. 98-0° (from  $\text{C}_6\text{H}_5\text{Napr}$ , ether) (semicarbazone, m. 185-7° (decomp.)). Heating 13 g.  $\text{MeCOCH}_2\text{CHCl}$  with 13 g.  $\text{N}_2\text{CHCO}_2\text{Et}$  to 80° gave 24% *Et*-*S*-acetyl-*S*-pyrenecarboxylic ester, m. 112-12.5° (from  $\text{H}_2\text{O}$ ) (semicarbazone, m. 210-12° (from dil.  $\text{EtOH-C}_6\text{H}_5\text{N}$ )); sapon. of the ester with hot 10%  $\text{NaOH}$  gave 65% free acid, decomp. 257-60° (from  $\text{EtOH-C}_6\text{H}_5\text{N}$ ), oxidized with alk.  $\text{KMnO}_4$  to *S*,*S*-pyrenediacarboxylic acid, m. 286-8° (decomp.).  
G. M. Kosolapoff

NE SMEYANOV, A. N.

Kochetkov, N. K., Rybinskaya, M. I. and Nesmeyanov, A. N. (M. V. Lomonosov  
Moscow State University), The interaction of alkyl- $\beta$ -chlorovinylketones and phenols,  
799-802.

Akademiya Nauk S. S. R., Doklady Vol. 79 No. 5, 1951.

NESMEYANOV, A. N.

USSR/Academies of Sciences - Committees May 51

"Concerning Appointment of a Chairman of the Committee for Coordinating the Construction of Hydroelectric Stations, Canals, and Irrigation Systems"

"Vest Ak Nauk SSSR" No 5, p 91

Acad A. N. Nesmeyanov, Pres, Acad Sci USSR, has been selected chairman of the Committee for Coordinating the Constr of Hydroelec Stations, Canals, and Irrigation Systems. This committee is subordinate to the Presidium of Acad Sci USSR.

221T98

PA 1957

NESMEYANOV, A. N.

Chemistry - Halogenated  
Hydrocarbons

Sep/Oct 21

Synthesis and Properties of Certain Polyhalogen  
Derivatives of Propane and Propane Containing  
the Trichloromethyl Group. A. N. Nesmeyanov,  
D. B. Freydina, V. I. Firstov, Inst of Org  
Chem., Acad Sci USSR

TM Akademik Nesmeyanov, Otdel Khim Nauk" No. 5,  
N 505-511

Action of DIB on  $\text{CCl}_3\text{CH}_2\text{CH}_2\text{Cl}$  yielded  $\text{CCl}_2^+$   
 $\text{CCl}_2\text{CH}_2\text{CH}_2\text{Cl}$  and  $\text{CCl}_3\text{CH}_2\text{CH}_2$  (latter compound never be-  
fore prep.). By series of reactions starting  
from prep).

1972

Chemistry - Halogenated  
Hydrocarbons (contd)

Sep/Oct 21

From these 2 compds, prep'd 8 new compds. contg  
 $\text{CCl}_2$  and  $\text{CCl}_3$  groups. Of compds contg  $\text{CCl}_3$   
group, 2 were Br-substituted.

NESMEYANOV, A. N.

PA 195T6

Chemistry - Oxime Ethers

Sep/Oct 21

Synthesis of o-ALLYL ethers of oximes, "A. N. Nesmeyanov, A. K. Kochetkov, N. N. Frejlin, Inst. of Org. Chem., Acad. Sci. USSR

in Akademik SSSR, Otdel Khim Nauk" No 5, N 52-517

Prepared allylboride (I) with aldi- and keto-enones in presence of  $\text{Pb}(\text{OAc})_4$  to obtain small yield of o-allyl oxime ethers, easily purified by distillation, but no N-allyl derive under conditions in question. Action of I on  $\text{KOB}_2$  gave

Chemistry - Oxime Ethers  
(Contd)

195T6  
Sep/Oct 21

Yield of o-allylhydroxylamine (II), > 97.5%  
C. Reacted II with oximes to prep a number  
of o-allyl oxime ethers. In all, prep 6 ethers  
before unknown o-allyl oxime ethers.

NESMEYANOV, A. N.

Chemistry - Organic titanium  
Compounds

Sep/Oct 71

"Action of chlorine and bromine on alkylorthotitanates," A. N. Nesmeyanov, R. Kh. Freydina, O. V. Bogus, Inst of Org Chem, Acad Sci USSR

"Ti Al Kauk gask, Otdel khim nauk" No 5, pp 518-523

Found that action of Cl<sub>2</sub> and Br<sub>2</sub> on Et, n-Pr, and orthotitanates gives good yield of compds of type (RO)<sub>2</sub>TiCl<sub>2</sub>·ROH and that orthoalkyltititanates cause inter-condensation of aldehydes according to Grubisic. Synthesized following previously unknown compds: (RO)<sub>2</sub>TiR<sub>2</sub>·ROH (R = Et, Pr, Bu, resp);

1971

Chemistry - Organic titanium  
Compounds (Contd)

Sep/Oct 71

(RO)<sub>2</sub>TiCl<sub>2</sub>·ROH (R = Pr, Bu, resp); (PrO)<sub>2</sub>TiCl by interaction of pyridine chlorhydrate with Pr orthotitanate; and (RO)<sub>2</sub>Ti (R = ClEt, Bu, MeEt, resp) by re-esterification.

1971

NESEYANOV, A. N.

PA 197M

/SSN/Chemistry - Halogenated Ethers Nov/Dec 51

"Beta, Beta Prime-Dibromosubstituted Ethers,"  
A. N. Neseyanov, V. A. Sazonova, Ye. I. Vasil'yeva,  
Moscow State U imeni M. V. Lomonosov

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 6, pp 708-713

Investigated the reaction of ethylene oxide and  
bromine with unsatd hydrocarbons (ethylene, pro-  
pane, isobutene, cyclohexene) leading to beta,  
beta prime-disubstituted ethers. Vinyl-beta-bro-  
moethyl ether reacts with activated magnesium or  
Ba metal under evolution of ethylene and acetyl-  
lene.

197M

CA NESMEYANOV, A. N.

2

*Academicians N. D. Zelinskii, A. N. Nesmeyanov, M.  
A. Prokof'ev, and N. S. Shishkin. Vestnik Matematiki  
6, No. 2, Ser. Fiz.-Mat. i Estestv., Nach No. 1, 3-4 (1951).  
—Salutation on 80th birthday, with portrait. G. M. K.*

CR  
P.6. *Bromo substituted ethers.* A. N. Novosyamov,  
V. A. Smirnov, and E. I. Vasil'eva (M. V. Lomonosov  
State Univ., Moscow), *Zhur. Akad. Nauk S.S.R.,  
Otdel. Khim. Nauk* 1958, 708-10.—Treatment of 41 g.  
ethylene oxide simultaneously with a stream of  $\text{CH}_2\text{Br}$  and  
 $\text{Br}$  (116 g.) with stirring and ice cooling over 4 hrs., followed

by eq. treatment with dil.  $\text{Na}_2\text{CO}_3$ , gave 44% ( $\text{BrCH}_2\text{CH}_2\text{O}$ )<sup>2</sup>  
(I),  $n_2^{\circ}$  74-5°,  $n_2^{\circ}$  1.5130,  $d_2^{\circ}$  1.8430. The residues from  
several runs also gave some 10% ( $\text{BrCH}_2\text{CH}_2\text{OCCH}_3$ ),  $n_2^{\circ}$  117-  
18°,  $n_2^{\circ}$  1.5035,  $d_2^{\circ}$  1.6777, and a small amt. of ( $\text{BrC}_6\text{H}_4$ -  
 $\text{CH}_2\text{OCH}_2\text{CH}_2\text{O}$ ),  $n_2^{\circ}$  138-4°,  $d_2^{\circ}$  1.2995,  $n_2^{\circ}$  1.4021. I,  
(20 g.) heated with 18 g. powdered KOH in a 204° bath gave  
 $\text{H}_2\text{O}$  and 30%  $\text{BrCH}_2\text{CH}_2\text{OCH}(\text{CH}_3)_2$ ,  $n_2^{\circ}$  125.5-7.0°,  $n_2^{\circ}$   
1.4705,  $d_2^{\circ}$  1.4117, that with activated Mg in  $\text{MgO}$  yields  
 $\text{C}_6\text{H}_5$  and  $\text{C}_6\text{H}_4$ , also formed with Na metal. Similar reac-  
tion of 62 g. ethylene oxide with  $\text{MeCH}_2\text{CH}_2$  and 125.6 g.  $\text{Br}$   
gave 55%  $\text{BrCH}_2\text{CH}_2\text{OC(CH}_3)_2\text{CH}_2\text{Br}$ ,  $n_2^{\circ}$  64-5°,  $n_2^{\circ}$  1.5035,  
 $d_2^{\circ}$  1.7225; and some 6%  $\text{BrCH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OC(CH}_3)_2\text{CH}_2$   
 $\text{CH}_2\text{Br}$ ,  $n_2^{\circ}$  112-13°,  $n_2^{\circ}$  1.4600,  $d_2^{\circ}$  1.4854. The latter  
with  $\text{PhN}_2\text{Br}$  yields 65% 2-methyl-4-piperidone phoxide,  $n_2^{\circ}$   
4°,  $n_2^{\circ}$  1.5500,  $d_2^{\circ}$  1.0430, yielding a nitroso deriv.,  $n_2^{\circ}$  68-  
70° (from eq.  $\text{Me}_2\text{CO}$ ), which with  $\text{NaHSO}_3$  yields 2-methyl-  
morpholine,  $n_2^{\circ}$  133°,  $n_2^{\circ}$  1.4430. The simultaneous action  
of  $\text{Me}_2\text{CH}_2$  and  $\text{Br}$  on ethylene oxide, as above, gave an  
unstated yield of  $\text{BrCH}_2\text{CH}_2\text{OCMe}_2\text{CH}_2\text{Br}$ ,  $n_2^{\circ}$  84-5°,  $n_2^{\circ}$   
1.4005,  $d_2^{\circ}$  1.2234. Cyclohexene similarly gave 2-bromo-  
ethyl 2-bromocyclohexyl ether (II), 78%,  $n_2^{\circ}$  110°,  $n_2^{\circ}$  1.5256,  
 $d_2^{\circ}$  1.0220, while the residues gave a little 2-bromocyclohexyl  
2-bromoethyl glycid ether,  $n_2^{\circ}$  148°,  $n_2^{\circ}$  1.5172,  $d_2^{\circ}$  1.5220.  
II (20 g.) refluxed 6.5 hrs. with 4 g. KOH in  $\text{KOH}$  gave 37%  
2-ethoxyethyl cyclohexenyl- $\beta$ -ether,  $n_2^{\circ}$  72°,  $n_2^{\circ}$  1.4578,  $d_2^{\circ}$   
0.9440; heated with Na to 190° it yields cyclization product.  
Similar reaction 7 days at room temp. gave an unstated  
yield of 1-ethoxy-2-(2-bromobutyl)cyclohexene,  $n_2^{\circ}$  116°,  
 $n_2^{\circ}$  1.4705,  $d_2^{\circ}$  1.2375.

G. M. Koenigsmann

PA 19376

NESEYANOV, A. N.

USSR/Chemistry - Petroleum,  
Hydrocarbons

Jan/Feb 51

"Lines of Development of Academician N. D. Zeliuskiy's Work," B. A. Kazanskiy, A. N. Nezeyanov, A. F. Plate, Moscow

"Uspekhi Khim" Vol XX, No I, pp 18-53

General review of N. D. Zeliuskiy's chem achievements in fields of synthesis of hydrocarbons, interconversions of hydrocarbons, research into the origin of petroleum, catalytic conversions of polycyclic systems, and catalytic conversions of org S compds.

19376

(CA 48 no. 2: 414 '54)

NESMEYANOV, A. N.

191T14

## USSR/Chemistry - Organometallic Compounds

Sep/Oct 51

"Review of S. T. Ioffe and A. N. Nesmeyanov's 'Handbook of Magnesium-Organic Compounds,' Volumes I-III," Ya. T. Rydus

"Uspokh Khim" Vol XX, No 5, pp 671, 672

Reviews in some detail this work, which is a part of the series "Synthetic Methods in the Field of Organometallic Compounds" published under the general editorial supervision of Acad A. N. Nesmeyanov and K. A. Kocheshkov, Corr Mem, Acad Sci USSR. States that all references to

191T14

## USSR/Chemistry - Organometallic Compounds (Contd)

Sep/Oct 51

reactions involving Mg-org compds and listed in "Chem Zentralblatt," 1899 - 1940, and "Chem Abstracts," 1941 - Jan 1, 1948, as well as Russian and USSR work in this field not listed by these 2 journals (altogether more than 13,000 reactions) have been included in the handbook. According to Rydus, the handbook is well published and indexed. Published by Presu Acad Sci USSR, M-L, 1950.

191T14

NESMEIANOV, A. N.

The speech of the President of the Academy of Sciences of the USSR, academician A. N. Nesmeianov. P. 28.

SO: Vestnik, Messenger of the Acad. of Sci., USSR, 21, 3, (1951)

NESEYKINOV, A. M.

"Reply to E. A. Shilov." (p. 2093)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Vol 21, No 11.

NE SMEIANOV, A. N.

The president of the Academy of Sciences of the USSR, academician A. N. Nesmeianov.

Brief biographical sketch. P. 30.

SO: *Vestnik, Messenger of the Acad. of Sci., USSR, 21, 3, (1951)*

NESEMEYANOV, A. N.

Peace - Congresses

Address by president of the Academy of Sciences of the U.S.S.R., Academician A. N. Nesmeyanov, at the 3rd All-Union Conference of the Partisans of Peace., Vest. AN SSSR, 21, no. 12, 1951.

9. Monthly List of Russian Accessions, Library of Congress, May 1953<sup>1/2</sup> Uncl.

*CA**10*

**Synthesis in the heterocyclic series based on 2-chlorovinyl ketones.** A. N. Nevezynov and N. K. Kochetkov (M. V. Lomonosov Moscow State Univ.), *Doklady Akad. Nauk SSSR*, 77, 16-8 (1951); cf. C.A. 45, 1461b. —  $\text{RCOCH}(\text{Cl})\text{CH}_2\text{Cl}$  with hydrazines, diisulfides, org. acids, hydrazinium salts, give a variety of heterocyclic compounds in satisfactory yields. Thus, 10 g.  $\text{MeCOCH}(\text{Cl})\text{CH}_2\text{Cl}$  in 20 ml.  $\text{Et}_2\text{O}$  added to a cooled soln. of  $\text{C}_6\text{H}_5\text{N}_2$  (from 20 g.  $\text{Me}(\text{NO})_2\text{NCONH}_2$ ) in 250 ml.  $\text{Et}_2\text{O}$ , gave a cryst. ppt. in 1 hr.; treating this with 5%  $\text{NaCO}_3$ , extg. the soln. with  $\text{Et}_2\text{O}$  and evapn., the  $\text{Et}_2\text{O}$  gave 67.5% 4-acetylpyrazole, m. 100-1° (from  $\text{CaH}_2$ ), sol. in  $\text{H}_2\text{O}$ ,  $\text{Et}_2\text{O}$ ,  $\text{Me}_2\text{CO}$ ,  $\text{EtOH}$ , poorly sol. in petr. ether; *p*-nitrophenylhydrazone, ca. 248-9°; oxime, in

m. 142-3°; semicarbazone, m. 204-5° (from  $\text{H}_2\text{O}$ ; decomp.). Refluxing 3.5 g.  $\text{PhNH}_2$  and 3 g.  $\text{MeCOCH}(\text{Cl})\text{CH}_2\text{Cl}$  in 10 ml.  $\text{CaH}_2$  10 hrs. and concn. gave 38% 1-phenyl-4-acetyl-1,2,3*H*-triazole, m. 108-9° (from dil.  $\text{Et}_2\text{O}$ ) sol. in  $\text{Me}_2\text{CO}$ , hot  $\text{EtOH}$ ; semicarbazone, m. 222-3° (from  $\text{EtOH}$ ); oxidation with alk.  $\text{KMnO}_4$  yields an acid, m. 140-50°. Refluxing 11.5 g.  $\text{NH}_2\text{OH}\text{HCl}$  and 18 g.  $\text{MeCOCH}(\text{Cl})\text{CH}_2\text{Cl}$  3 hrs. in 200 ml.  $\text{MeCN}$ , treating the hot soln. with 100 g.  $\text{CaH}_2$  in hot satd. aq. soln., and letting stand several days gave the *Cd complex* of methylisoxazole, which on moistening with  $\text{H}_2\text{O}$  and thermal decomp. (distn.) and purification by  $\text{Et}_2\text{O}$  gave 8.3 g. pure methylisoxazole, b. 119.5-20.0°,  $d_{4}^{20}$  1.0236,  $n_{D}^{20}$  1.4348; treatment with  $\text{EtONa}$  (Claisen, C.A. 3, 899) showed the presence of 54% 5-isomer.  $\text{MeCOCH}(\text{Cl})\text{CH}_2\text{Cl}$  (22 g.) and 40 g.  $\text{AcCH}_2\text{COEt}$  in 75 ml.  $\text{EtOH}$  satd. with  $\text{NH}_3$ , kept 1 hr. at room temp., and refluxed 3 hrs. gave upon filtration and distn. 50%  $\text{Et} \beta,\beta$ -dimethylbutyrate, b.p. 111-17°, b.p. 130-1°,  $d_{4}^{20}$  1.0565,  $n_{D}^{20}$  1.5070; *pirate*, m. 137°; *picrolonate*, m. 142.5°.

G. M. Kosolapoff

NE SMEYANOV, A. N.

NASMEIANOV, A. N.

From the Russian for Mr. G. O. Doak  
Doklady Akademii Nauk SSSR, 78 (4): 709-712; 1951.

A New Method for Obtaining Primary Aryl Phosphinic Acids  
by

B. M. Mikhailov and N. F. Kucherova

(Article was presented by Academy Member A. N. Nasmeianov March 20, 1951).

Translated at the Institute of Organic Chemistry, Academy of Sciences, U.S.S.R.  
Full translation available in [redacted].

Synthesis of pyridine derivatives using  $\beta$ -chlorovinyl ketone. N. K. Kuchelkov, A. Gonsalves, and A. N. Nesmeyanov (M. V. Lomonosov State Univ., Moscow). *Doklady Akademii Nauk S.S.R.* 79, 603-12 (1951); *cf. C.A.* 46, 4074, 3907d.—MeC(NH<sub>2</sub>):CHCO<sub>2</sub>Et (15.0 g.) and 7.0 g. MeCOCH:CHCl were kept 1 hr. at room temp., heated 4 hrs. on a steam bath, 25 ml. 20% H<sub>2</sub>SO<sub>4</sub> added, the mixt. heated an addnl. 2 hrs., cooled, neutralized with 40% NaOH, and extd. with ether and the ext. dried over K<sub>2</sub>CO<sub>3</sub> and dist. to give 75% Et 2,6-dimethylnicotinate, b.p. 125-6°, n<sub>D</sub><sup>20</sup> 1.5070. Similarly adding 30 g. AcCH<sub>2</sub>CO<sub>2</sub>Et in 100 ml. sied. NH<sub>2</sub>EtOH to 25 g. AmCOCH:CHCl gives Et 2-ethyl-6-ethyl-nicotinate, b.p. 157-8°, d<sub>4</sub><sup>20</sup> 0.9960, n<sub>D</sub><sup>20</sup> 1.4803 (46% yield). Et 2-methyl-6-propylnicotinate b.p. 138-9°, d<sub>4</sub><sup>20</sup> 1.069, n<sub>D</sub><sup>20</sup> 1.5010. 3-Acetyl-2,6-dimethylpyridine b.p. 114-16°, m. 74-5°. Et 2,4-dimethylnicotinate (from H<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>COMe) b.p. 115-16°, d<sub>4</sub><sup>20</sup> 1.1100, n<sub>D</sub><sup>20</sup> 1.5335. 2,4-Dimethylpyridine b.p. 157-9°, n<sub>D</sub><sup>20</sup> 1.5025; picrate, m. 182.5-3°. M. D.

NESEMEYANOV, A.N.

Mechenye atomy [Marked atoms]. Izd. 2-e, Gostekhnizdat, 1952. 63 p.

SO: Monthly List of Russian Accessions, Vol. 6, No. 2, May 1953

NESMEYANOV, A.N., akademik, otvetstvennyy redaktor; BOBROV, P.A., doktor khimicheskikh nauk, otvetstvennyy redaktor; YELIZAROVA, A.N., kandidat khimicheskikh nauk, chlen redaktsionnoy kollegii; KAPLAN, Ye.P., kandidat khimicheskikh nauk, sekretar'; LIBERMAN, A.L., kandidat khimicheskikh nauk, chlen redaktsionnoy kollegii; MAGIBINA, T.D., kandidat khimicheskikh nauk, chlen redaktsionnoy kollegii; MUDENKO, V.A., kandidat khimicheskikh nauk, заместитель отвественного редактора; NYUS, Ya.T., doktor khimicheskikh nauk, chlen redaktsionnoy kollegii.

[Syntheses of organic compounds] Sintez organicheskikh khimii. Moskva, Izd-vo Akademii nauk SSSR. Vol.2. 1952. 190 p. (MLR 6:5)

1. Akademiya nauk SSSR, Institut organicheskoy khimii.  
(Chemistry, Organic)

NOGINA, O.V.; FREYDLINA, R.Eh.; NEVMEYANOV, A.N.

Synthesis of trialkoxytitanium chlorides. Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci. '52, 81-5 [Engl. translation].

(CA 47 no.19:9911 '53)

NESEYANOV, A.N.; SAZONOVA, V.A.; VASIL'YEVA, Ye.I.

Stereoisomeric sodium enolates. Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci. '52, 87-95 [Engl. translation].  
(CA 47 no.19:9912 '53)

KOCHETKOV, N.K.; NESMEYANOV, A.N.; SEMENOV, N.A.

Synthesis of isoxazoles from 2-chlorovinyl ketones. Bull. Acad. Sci.,  
Div. Chem. Sci. '52, 97-102 [Engl. translation].  
(CA 47 no.19:9964 '53)

NESMEYÁNOV, A. Academician  
Great Force of Creative Cooperation. By Academician A. Nesmeyanov, President  
of U.S.S. R. Academy of Sciences.

Soviet Source: Pravda, Feb. 29, pp-2-3

Current Digest of the Soviet Press (in █ LIBRARY), Vol. 4, No. 9, 1952  
p. 32.

NESMEYANOV, A. N.

Chemical Abst  
Vol. 48 No. 9  
May 10, 1954  
Organic Chemistry

*(3) Chem*  
Preparation of alkoxytitanium trichlorides from titanium tetrachloride and alcohols. A. N. Nesmeyanov, R. Kh. Freidlin, and O. V. Nordin. *Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci.* 1952, 907-8 (Engl. translation).—See *C.A.* 48, 587e. H. L. H.

RESMEYANOV, H. N.

Chem Abstr V 78  
1-26-54  
Organic Chemistry

✓ Preparation of alkyltinanium trihalides from tinanium tetrachloride and alcohols. A. N. Nevezynov, E. Kh. Kreflina, and O. V. Norma. Izvest. Akad. Nauk S.S.R., Okt. 1952, 1037-40; cf. Jennings, et al., C.A. 50, 5180. — Reaction of  $TiCl_4$  with small proportions of ROH yields  $ROTiCl_3$  as the sole product. The reagents thoroughly dry and the reaction must be protected against atm. moisture. To 142.5 g.  $TiCl_4$  and 200 ml. petr. ether (b. 50-80°) was gradually added 30 g. PrOH in 200 ml. petr. ether, the mixt. was refluxed 3 hrs., concd., and chilled, yielding a ppt. which was sepd. and dried, giving after 2 distns. 90.5%  $PrOTiCl_3$ , b.p. 100-2°, m. 65-6°. Similarly 142 g.  $TiCl_4$  and 23 g. EtOH in petr. ether gave, after 8 hrs. reflux, decantation from a ppt. concn. of the soln., and chilling, 87.5%  $EtOTiCl_3$ , b.p. 185-6°.  $TiCl_4$  (95 g.) and 24.7 g. iso-BuOH in 225 ml.  $CCl_4$  gave after 9 hrs. reflux and chilling, nearly 100%  $iso-BuOTiCl_3$ , b.p. 92-4°, m. 81-3°. iso-AmOH (44 g.) and 142.5 g.  $TiCl_4$  in petr. ether gave after 8 hrs. reflux 95.5%  $(iso-AmOTiCl_3)$ , b.p. 110-11°, m. 80-80°;  $CH_3OH$  and  $TiCl_4$  similarly, gave after 8 hrs. reflux nearly 100%  $CH_3OTiCl_3$ , b.p. 120-2°, m. 47.5-0.0°;  $MeOCH_2CH_2OH$  (38 g.) and 142.5 g.  $TiCl_4$  in 275 ml.  $CCl_4$  gave after 4 hrs. reflux nearly 100%  $MeOCH_2CH_2OTiCl_3$ , which sublimed slowly at 160-80° at 5 mm., and the sublimed product, m. 164-6°; it was insol. in petr. ether,  $CCl_4$ ,  $C_6H_6$ , or  $Bu_2O$ . G. M. Kosolapoff

NF  
1-26-54

NESVETANOV, A. N.

"Tenth Session on Coordination of Scientific Activity of the Academies of Sciences of the Union Republics (6 Dec 51). Introductory Remarks by Chairman of the Council for Coordination," Vest AK nauk SSSR, No 1, pp 13-15, Jan 52.

Six academies were present at first session in 1945. Since then, scientific progress of USSR is reflected in the fact that 12 out of 16 republic academies with affiliates in other republics participated. The purpose is to combine all efforts in order to surpass technical and scientific accomplishments of capitalistic countries.

251T60

KOCHETKOV, N. K., MESMEYANOV, A. N., SERGAEV, N. A.

Isoxazoles

Synthesis of isoxazoles from  $\beta$ -vinyl chloride ketones. Izv. AN SSSR. Otd. Khim. nauk no. 1, 1952.

Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

NEZMETANOV, A.N., SAZONOVA, V.A., VASIL'YEVA, Ye. I.

Enolates

Stereoisomeric sodium enolates. Izv. AN SSSR otd. khim. nauk no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952, Uncl.

NESMEYANOV, A. N.

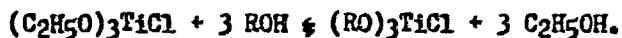
USSR/Chemistry - Titanium Compounds

Jan/Feb 52

"A New Method for Synthesizing Trialkoxytitanium Chlorides," O. V. Nogina,  
R. Kh. Freydlina, A. N. Nesmeyanov; Inst of Org Chem, Acad Sci USSR

"Iz Ak Nauk, Otdel Khim Nauk" No 1, pp 74-77

The new synthesis is based on the re-etherification of triethoxy titanium  
chloride, and proceeds as follows:



A number of heretofore unknown compds was synthesized by this method, which  
is quick and gives an almost quant yield.

PA 208T6

NESEYANOV, A. N.

USSR / Chemistry - Structural Theory

Jan/Feb 52

"Concerning 'Contact Bonds' and 'The New Structural Theory,'" A. N. Neseyanov

"Iz Akademii SSSR, Otdel Khim Nauk" No 1, pp 196-200  
criticizes G. V. Chelintsev's structural theory, particularly his concept of homopolar contact bonds. States that Chelintsev, in assuming localization of bonds in molecules of the type A<sup>4+</sup>A<sup>-</sup>, leaves entirely the ground of natural science and indulges in purely legalistic casuistry. Says

USSR / Chemistry - Structural Theory (Contd)

Jan/Feb 52

further that while USSR chemistry should ought to be cleansed from harmful influences of decadent bourgeois philosophy and science, homomade vulgarizations of science must be also eliminated.

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17700 V, PT-IV.

Chem Ab 1948  
1-25-54

organic chemistry

*V* cis-2-Chlorovinylmercuric chloride. A. N. Nesmeyanov  
and A. E. Borsov. Akad. Nauk S.S.R., Inst. Org.  
Khim., Sintetichesk. Soedinenii, Sbornik 2, 146-7 (1952);

cf. U.S. 2,388,116.—Heating with stirring 8 hrs. at 90-6°—  
a mixt. of 10 g. trans-CHCl:CHHgCl, 25 ml. dry xylene and  
0.2 g. Br<sub>2</sub>O<sub>2</sub>, filtration while hot, and cooling the filtrate  
gave 85-95% cis analog, m. 78-9° (some 1.5-2 g. being re-  
covered from the original filtrate by addn. of petr. ether or  
distn. of some xylene).

G. M. Kosolapoff

17700  
1-25-54

NESVYANOV, A.N., Academician

Academy of Sciences of the U.S.S.R.

Yearly meeting of the Academy of Sciences of the U.S.S.R. (Feb. 1, 1952).  
Introductory speech by the President of the Academy of Sciences of the U.S.S.R.  
Izv. AN SSSR Otd. tekhn. nauk. No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, OCTOBER 1952 1953, Unclassified.

NESMEYANOV, A. N., Academician -

Creative Cooperation Between Scientist and Builders. Interview with Academician A. N. Nesmeyanov, President of the U.S.S. R. Academy of Sciences

Soviet Source: Izvestia, Dec. 25, P. 1.

Current Digest of the Soviet Press (in [redacted] Library), Vol. 3, No. 52  
1952. P. 28

NESEYANOV, A.N. (Pres)

USSR / Chemistry - Medicine.

APR 52

"Science to the People," Acad A. N. Neseyanov,  
Pres, Acad Sci USSR

"Priroda" No 4, pp 3-6

In connection with 1951 Stalin Prize awards,  
draws parallel between peaceful endeavors in the  
USSR and scientific activity in the US which led  
to "dropping by US armed forces over Korea and  
China of fleas, grasshoppers, sandflies, birds,  
and bats infected with bacteria of plague, cholera,  
and typhus." As outstanding new USSR achievements,  
mentions new syntheses of eustine and pilocarpine.

21 SEP

(by V. A. Preobrazhenskiy), synthesis of promedol  
(anesthetic which is much more effective than mor-  
phine and less toxic), conquest of smallpox,  
plague, cholera, syphilis, malaria, and typha.  
tick-born encephalitis, V. A. Negovskiy's work  
on reviving dead people by intraarterial trans-  
fusion of blood containg glucose and adrenalin  
(accompanied by intravenous blood transfusion and  
artificial respiration), etc.

21 SEP

NESMEYANOV, A. Academician

SOVIET SCIENCE SERVES THE PEOPLE. (By Academician A. Nesmeyanov,  
President of the U.S.S.R. Academy of Sciences.)

Soviet Source: Pravda, March 13, p. 3

Current Digest of the Soviet Press ( in [redacted] Library ), Vol. 4, No. 11  
1952, p. 16

1. NESMEYANOV, A., Academician

2. USSR (600)

TAKE FIRST PLACE IN WORLD SCIENCE. (By Academician A. Nesmeyanov, President of the U.S.S.R. Academy of Sciences.

9. Soviet Source: Pravda, Oct. 23, p. 2

9a. Current Digest of the Soviet Press (in ~~the~~ Library), Vol. IV, No. 43, 1952, P. 24

1. A.N. NESMETANOV, R. K. FREYDLINA, O. V. NOGINA
2. USSR (600)
4. Alcohols
7. Preparation of alkoxytitanium trichlorides from titanium tetrachloride and alcohols. Izv. AN SSSR. Otd. khim. nauk no. 6. 1952.
  
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

NESEMEYANOV, A. N.

Science

Opening address, President of the Academy of Sciences of the U.S.S.R. Vest  
AN SSSR 21 no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, July <sup>2</sup> 1953, Uncl.

NESMEIANOV, A. N.

Scientific Societies

Introductory speech by the chairman of the Council for Coordination, Vest.  
AN SSSR 22 No. 1, 1952

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

NESMEYANOV, A. N., Acad.

Science

Great power of creative cooperation, Vest. AN SSSR, 22, No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, OCTOBER 1952, Uncl.

NESKEYANOV, A. N.

USSR (600)

Natural History

Transformation of nature.. Priroda, 41, no. 1, 1952

9. Monthly List of Russian Accessions, Library of Congress, May 2 1954. Unclassified.

NESMEYANOV, A. N.

USSR/Chemistry - Radioactive Isotopes Mar 52 |

"Tracer Atoms," A. N. Nesmeyanov

"Priroda" Vol 41, No 3, pp 28-40

Nesmeyanov gives a general and rather elementary review of the subject, without differentiating too precisely between USSR and foreign work.

230T3

NESSEYANOV, A.N.

Science

Science for the people. Priroda 41 no. 4, 1952.

9. Monthly List of Russian Accessions, Library of Congress, July 1952 ~~1953~~, Uncl.

NESMEYANOV, A.N.; KOCHETKOV, N.K.; KARPEYSKIY, M. Ya.; ALEKSANDROVA, G.V.

Diene synthesis with 2-chlorovinyl ketones. Condensation with cyclo-pentadiene. Doklady Akad. Nauk S.S.R. 82, 409-12 '52. (MLRA 5:3)  
(CA 47 no.14:6876 '53)

1. M.V.Lomonosov State Univ., Moscow.

NESMYANOV, A.N.; BRAYNINA, E.M.; FREYDLINA, R.Kh.

Hydrolysis and polycondensation of ethyl orthotitanate. Doklady  
Akad. Nauk S.S.R. 85, 571-3 '52. (MLRA 5:8)  
(CA 47 no.15:7433 '53)

NESMEYANOV, A. N.

PA 245T10

22

USSR/Chemistry - Organometallic  
Compounds

"Synthesis of Aromatic Thallium Compounds by the  
Way of Diizo Compounds," Acad. A. N. Nesmeyanov  
and L. G. Makarova, Inst. of Organic Chem., Acad.  
Sci. USSR

"Dok Ak Nauk SSSR" Vol. 87, No 3, pp 417-420

Organothallium compounds can be prepared by re-  
acting arylidazonioborofluorides with thallium  
sodium alloys or powdered metallic thallium in  
acetone. Using this method, the following

245T10

thallium diaryl chlorides were obtained in low  
yields (10-20% of theoretical): diphenyl,  
diphenylidiotolyl, diphenylchlorophenyl,  
diphenylmethoxyphenyl, diorthomethoxyphenyl, di-  
acetoxyphenyl, and diphenylcarbethoxyphenyl.

245T10

Transl. in /M

245T10

PA 245T11

NESMEYANOV, A. N.

21 Nov 52

USER/Chemistry - Organic metallic com-  
pounds

"Synthesis of Aromatic Tin Compounds by Means of  
Aryldiazonium Borofluorides," Acad. A. N. Nesmeyanov  
and L. G. Nakarova, Inst of Organic Chem, Acad. Sci.  
USSR

"Dok Ak Nauk SSSR" Vol. 87, No 3, pp 421-422

Organic-tin compounds are obtained in yields up to  
40% by the interaction of aryl diazonium borofluorides  
with tin chloride and zinc dust in acetone. The  
main product is diaryltin dichloride, but some triaryl  
and monoaryltin chlorides are also obtained. The method

245T11

gives good results with simple aromatic radicals such  
as phenyl, its homologs, and halogen substituted  
products. Other radicals require special conditions  
which will have to be worked out.

NIH translation - M.

(CA 48 no. 2:623 '74)

245T11

USSR/Chemistry      Synthesis

Card : 1/1

Authors : Nesmeyanov, A. N., Reutov, O. A., and Knol', P. G.

Title : Synthesis of arylstibine acids from binary diazonium salts of antimony pentachloride

Periodical : Izv. AN SSSR, Otd. Khim. Nauk., 3, 410 - 417, May - June 1954

Abstract : The formation of arylstibine acids, resulting from the decomposition of binary diazonium salts of antimony pentachloride with cuprous chloride in a medium of organic solvents, was investigated. The homolytical, but not a free-radical nature of the reaction leading to the formation of arylstibine acids, was established by the nature of the secondary reaction products. The three stages bringing about the formation of arylstibine acid are described. Nine references: 6 USSR, 2 German, 1 USA. Tables.

Institution : The M. V. Lomonosov State University, Moscow

Submitted : July 1, 1953

USSR/ Chemistry      Organic chemistry

Card : 1/1      Pub. 40 - 4/27

Authors : Nesmeyanov, A. N., Zakharkin, L. I., Kost, V. N., and Freydlina, R. Kh.

Title : Allyl regrouping in polychlorobutenic acids and about certain errors made by Auwers and Wissebach in their work regarding allyl regrouping

Periodical : Izv. AN SSSR. Otd. khim. nauk 4, 604 - 609, July - August 1954

Abstract : The relation of  $\text{CHCl}_2 - \text{CH} = \text{CH} - \text{CO}_2\text{H}$  and  $\text{CCl}_2 - \text{CH} = \text{CH}_2\text{CO}_2\text{H}$  acids and the corresponding relation of their derivatives to prototropic allyl regrouping, was investigated. The errors made by two German chemists, K. A. Auwers and H. Wissebach, in two-stage reduction of gamma,gamma, gammatrichlorocrotonic acid into plain crotonic acid through double isomerization, are pointed out. Seven references: 3 USSR; 2 USA and 2 German (1923 - 1954).

Institution : Acad. of Sc. USSR, Institute of Organic Chemistry

Submitted : August 23, 1953

USSR/Chemistry      Synthesis

Card : 1/1      Pub. 40 - 5/27

Authors : Anisimov, K. N., and Nesmeyanov, A. N.

Title : Investigation of phosphinic acid derivatives. Part I.- Synthesis of beta-alkoxy (phenoxy)-phosphinic acid chlorides

Periodical : Izv. AN SSSR. Otd. khim. nauk 4, 610 - 613, July - August 1954

Abstract : The addition of phosphorpentachloride to alkyl(aryl)vinyl ethers and the chemical properties of the addition products obtained, were investigated. A simple and convenient method for the synthesis of dichloroanhydrides of beta-alkoxy(phenoxy)-vinylphosphinic acids, is described. The effect of carboxylic acids and water on the yield of addition products, is explained. Nine references: 2 USSR; 4 USA and 3 German (1876 - 1948). Table.

Institution : Acad. of Sc. USSR, Institute of Organic Chemistry

Submitted : August 23, 1953

NESMEYANOV, A. N.

USSR/Chemistry Physical Chemistry

Card : 1/1

Authors : Nesmeyanov, A. N., Kochetkov, N. K., and Rybinskaya, M. I.

Title : Regrouping of beta-phenoxyvinyl ketones

Periodical : Izv. AN SSSR, Otd. Khim. Nauk., 3, 418 - 426, May - June 1954

Abstract : The factors leading to the regrouping of the beta-phenoxyvinyl ketones, connected with the displacement of the keto-vinyl group into ortho- and para-positions are examined. The products

Eight references: 3 USSR, 3 German, 2 USA.

Institution : The M. V. Lomonosov State University, Moscow

Submitted : July 8, 1953

NESMEYANOV, A. N., President, Acad. of Sci. USSR

"Freedom of Scientific Creation," mentioned in 17 Dec 53 Pravda. The article appeared in Issue 24 of bi-weekly magazine News.

MEZHEYANOV, A.N., akademik, redaktor; TOPCHIYEV, A.V., akademik,  
redaktor; TSIKOVA, O.V., redaktor; LICHENSKAYA, YE.S., redaktor.

[Mikolai Nikolaevich Kachalov] Mikolai Nikolaevich Kachalov.  
Vestup. stat'ia V.P. Barsakovskogo. Bibliografiia sostavlena  
R.W. Belovoi. [Glav. redaktor A.N. Mezheyanov] Moskva, 1953. 42 p.  
(Materialy k bibliografii uchenykh SSSR. Seriya khimicheskikh  
nauk, vyp. 18) (MIRA 7:8)

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(Kachalov, Mikolai Nikolaevich, 1883- )

NESMENYANOV, A.N.

SOBOL', S.L.; SMIRNOV, G.D.; ISAKOVA, O.V.; NESMENYANOV, A.N., akademik,  
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G.D.Smirnova. Bibliografiia sostavlena O.V.Izakovoi. Moskva, 1953.  
59 p. (Materialy k biobibliografii uchennykh SSSR. Seriya biologicheskikh  
nauk: Fiziologiya, vyp.5) (MLRA 7:3)

1. Akademiya nauk SSSR.

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NESMEYANOV, A. N.

Markierte Atome. Berlin, Aufbau, 1953.  
77 p. Illus., Diagrs., Tables.  
Translation from the Russian, "Mechenyye Atomy".

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GLUSHCHENKO, I.Ye.; YEPIFANOVA, A.P.; NESMRYANOV, A.N., akademik,  
redaktor; TOPCHIYEV, A.N., akademik, redaktor.

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1. Akademiya nauk SSSR.  
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"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136620

NESELEVANOV, A. N.

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Vol. 48 No. 8

Chemical Abst.  
Vol. 48 No. 8  
Apr. 25, 1954  
Apparatus, Plant Equipment,  
and Unit Operations

In memory of academician Nikolai Dmitrievich Zel'dovich  
A. M. Kostylev, A. V. Trochkin, R. A. Karandik, and  
M. I. Shul'gin. Prell. Akad. Nauk S.S.R., Odzhd. Khim.  
Nech 1953. 765-74.—Obituary (1801-1953) with portrait  
G. M. Kosolapoff.

"APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136620

RE SINGAPORE

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R001136620C

NESMEYANOV, A. N.

"Achieve First Place in World Science," (leading article), Elektrичество, No 1,  
pp 3-6, Jan 53.

Discusses official Soviet edicts on need for USSR to achieve first place in world science and ways to attain this goal. Mentions A.N. Nesmeyanov's remarks to effect that: (a) ties between academic and industrial insts are not close enough; (b) co-operative work in applying ideas and achievements of Soviet scientists is often accidental and not free of elements of secret rivalry, which are harmful to Soviet society.

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NESMEYANOV, A.N., akademik; TOPCHIYEV, A.V., akademik.

Telegram of the Presidium of the Academy of Sciences of the U.S.S.R. to the Czechoslovak Academy of Sciences expressing condolence on the death of Klement Gottwald, President of the Czechoslovak Republic. Chekh.biol. 2 no.1:4 Ap '53. (MLRA 7:2)

1. President Akademii nauk SSSR (for Nesmeyanov). 2. Glavnyy uchenyy sekretar' Presidiuma Akademii nauk SSSR (for Topchiyev). (Gottwald, Klement, 1896-1953)

NESMEYANOV, A.N.; GIPP, N.K.; MAKAROVA, L.G.; MOZGOVA, K.K.

Use of the salt  $(C_6H_5Cl)_2SbCl_3$  in the double diazonium salt method.  
Izv. AN SSSR, Otd. khim. nauk, no. 2:298-302 Mr-By '53. (MLRA 6:5)

1. Institut organicheskoy khimii Akademii nauk SSSR. (Salts, Double)

NIH trans. in M.

NESEMEYANOV, A.N.; KOCHETKOV, N.K.; RIBINSKAYA, M.I.

Synthesis of 2-alkyl naphto- and 2-alkyl benzopyrylium salts on the basis  
of  $\beta$ -chlorovinyl ketones. Izv. AN SSSR Otd. khim. nauk no. 3:479-483 My-Je '53.  
(MLRA 6:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.  
(Benzopyrylium compounds)

*NESMEYANOV, AN.*

NESMEYANOV, A.N., akademik; TOPCHIYEV, A.V., akademik.

Telegram of condolence sent by the President's Council of the Academy of Sciences of the U.S.S.R. to the Czechoslovak Academy of Sciences on the death of the President of the Czechoslovak Republic Klement Gottwald [in Russian and English]. Chesk.fiz.zhur. 3 no.1:4,8 Mr '53. (MLRA 7:6)

1. President of the Academy of Sciences of the USSR (for Nesmyanov).
2. Chief Scientific Secretary of the President's Council of the Academy of Sciences of the USSR (for Topchiyev).  
(Gottwald, Klement, 1896-1953)

1. NESMEYANOV, Acad. A.
2. USSR (600)
4. Science and State
7. In Stalin's footsteps. Tekh. molod. No. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Unclassified.

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Resolution of the Presidium of the Academy of Sciences of the U.S.S.R.  
on the 300th anniversary of the reunion of the Ukraine with Russia.  
Sov. stn. no. 4:125-127 '53. (MLRA 6:12)

1. President Akademii nauk SSSR (for Nesmeyanov). 2. Glavnnyy uchenyy  
sekretar' Prisidiuma Akademii nauk SSSR (for Topchiyev).  
(Academy of Sciences of the U.S.S.R.) (Ukraine--History)